



1. (Currently Amended) A method of controlling free space distribution by key range within a database, the method comprising:

creating a data structure, wherein said data structure comprises key ranges of a plurality of database tables and indexes, and free space parameters associated with said key ranges, wherein the free space parameters associated with a first key range have at least one value different from the free space parameters associated with a second key range; and

redistributing a first plurality of rows within a first plurality of page sets of the database tables and indexes based on the free space parameters associated with the first key range,; and

redistributing a second plurality of rows within a second plurality of page sets of the database tables and indexes based on the free space parameters associated with the second key range.

2. (Currently Amended) The method of claim 1, wherein the first and second plurality of page sets comprise one or more of a file page set, or an index page set.

3. (Currently Amended) The method of claim 1, wherein each key range comprises a low key value and a high key value.

4. (Original) The method of claim 1, wherein the free space parameters associated with said key ranges comprise one or more of: a free page value, a free pages value, a percent free value, an end of key range number of free pages value, or a maximum number of rows value for each of the plurality of database tables and indexes.

5. (Original) The method of claim 4, wherein the free space parameter associated with said key ranges are user specified.

6. (Original) The method of claim 4, further comprising:

using growth trend analysis to automatically generate the free space parameters associated with said key ranges;

wherein the growth trend analysis is based on key range growth statistics.

7. (Original) The method of claim 4, wherein the data structure further comprises:
a plurality of key ranges of the plurality of database tables and indexes, and a plurality of free space parameters associated with said key ranges;

wherein one or more time values are associated with said plurality of free space parameters.

8. (Original) The method of claim 7,
wherein said one or more time values further comprises a starting time value;
wherein said plurality of free space parameters are active beginning at a starting time represented by the starting time value.

9. (Original) The method of claim 8,
wherein said one or more time values further comprises an ending time value;
wherein said plurality of free space parameters are active during a time frame beginning with a starting time represented by the starting time value and ending with an ending time represented by the ending time value.

10. Cancelled.

11. Cancelled.

12. Cancelled.

13. Cancelled.

14. Cancelled.

15. Cancelled.

16. Cancelled.

17. Cancelled.

18. (New) A database free space management method, comprising:
identifying a first range of key values associated with a first set of rows in a tablespace;
assigning first values to each of a plurality of free space management parameters
associated with the first range of key values;
identifying a second range of key values associated with a second set of rows in the
tablespace;
assigning second values to each of a plurality of free space management parameters
associated with the second range of key values, wherein the second values differ from the first
values by at least one free space management parameter value;
managing free space associated with the first set of rows in accordance with the first
values; and
managing free space associated with the second set of rows in accordance with the
second values.

19. (New) The method of claim 18, wherein the first set of rows are associated with a first
table in the tablespace and the second set of rows are associated with a second table in the
tablespace.

20. (New) The method of claim 18, wherein the act of identifying a first range of key values
comprises identifying a first key value and a second key value, wherein the first range of key
values is defined as the first key value minus the second key value.

21. (New) The method of claim 20, wherein the act of identifying a second range of key values comprises identifying a third key value and a fourth key value, wherein the second range of key values is defined as the third key value minus the fourth key value.

22. (New) The method of claim 18, wherein one or more of the free-space management parameters are selected from the group consisting of “free page value,” “free pages value,” “percent free value,” “end of key range number of free pages” and “maximum number of rows.”

23. (New) The method of claim 18, wherein the act of assigning first values to each of a plurality of free space management parameters comprises accepting user input for at least one of the first values.

24. (New) The method of claim 23, wherein the act of assigning second values to each of the plurality of free space management parameters comprises accepting user input for at least one of the second values.

25. (New) The method of claim 18, wherein the first set of rows in a tablespace comprise rows in a data table or an index.

26. (New) The method of claim 18, wherein the second set of rows in a tablespace comprise rows in a data table or an index.

27. (New) The method of claim 18, wherein the first sets of rows and the second set of rows comprise rows from a single table.

28. A program storage device, readable by a programmable control device, comprising instructions stored thereon for causing the programmable control device to:

- identify a first range of key values associated with a first set of rows in a tablespace;
- assign first values to each of a plurality of free space management parameters associated with the first range of key values;
- identify a second range of key values associated with a second set of rows in the tablespace;
- assign second values to each of a plurality of free space management parameters associated with the second range of key values, wherein the second values differ from the first values by at least one free space management parameter value;
- manage free space associated with the first set of rows in accordance with the first values;
- and
- manage free space associated with the second set of rows in accordance with the second values.

29. (New) The program storage device of claim 28, wherein the instructions to identify a first range of key values comprise instructions to identify a first key value and a second key value, wherein the first range of key values is defined as the first key value minus the second key value.

30. (New) The program storage device of claim 29, wherein the instructions to identify a second range of key values comprise instructions to identify a third key value and a fourth key value, wherein the second range of key values is defined as the third key value minus the fourth key value.

31. (New) The program storage device of claim 18, wherein the instructions to:
identify a first range of key values associated with a first set of rows in a tablespace,
comprise instructions to identify rows from a first table; and
identify a second range of key values associated with a second set of rows in a
tablespace, comprise instructions to identify rows from a second table.
32. (New) The program storage device of claim 31, wherein the first table comprises a data
table or an index and the second table comprises a data table or an index.